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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/690,761	10/22/2003	Steven W. Webb	128346-60701	5364	
7590 09/25/2006 .			EXAMINER		
James M. Singer			ADDISU, SARA		
Pepper Hamilton LLP One Mellon Center, 50th Floor			ART UNIT	PAPER NUMBER	
500 Grant Street			3722		
Pittsburgh, PA 15219		·	DATE MAILED: 09/25/2000	DATE MAILED: 09/25/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Annika dia an					
	Application No.	Applicant(s)				
Office Action Occurre	10/690,761	WEBB ET AL.				
Office Action Summary	Examiner	Art Unit				
	Sara Addisu	3722				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period v  - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1)⊠ Responsive to communication(s) filed on <u>22 O</u>	ctober 2003.					
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.					
3) Since this application is in condition for allowar	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.				
Disposition of Claims						
4) ☐ Claim(s) 1-24 is/are pending in the application.  4a) Of the above claim(s) is/are withdraw  5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-24 is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction and/or	wn from consideration.					
Application Papers						
9) The specification is objected to by the Examine	er.					
10)∑ The drawing(s) filed on <u>31 March 2004</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) ☐ The oath or declaration is objected to by the Ex	caminer. Note the attached Office	Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority document</li> <li>2. Certified copies of the priority document</li> <li>3. Copies of the certified copies of the priority document</li> <li>* See the attached detailed Office action for a list</li> </ul>	s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage				
Amount of A						
Attachment(s)  1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO_413)				
<ul> <li>Notice of Preferences Cited (PTO-932)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> <li>Paper No(s)/Mail Date 10/22/03, 1/24/05.</li> </ul>	Paper No(s)/Mail D					

#### **DETAILED ACTION**

### Specification

- The abstract of the disclosure is objected to because it is in claim format and contains legal phraseology, e.g. "comprising". Correction is required. See MPEP § 608.01(b).

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2, recites "..deformation is partially irreversible". The disclosure does not clarify what Applicant considers to be "partially" The disclosure describes either reversible deformation or irreversible deformation but not "partially irreversible". For the purpose of this Office Action, Examiner is interpreting it as being irreverable.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

<sup>(</sup>b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 4-7, 11 and 17-20, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroyama et al. (USP 5.183.362).

Kuroyama et al. teaches a tool insert having a cemented carbide insert body (1) and an abrasive tip (3) the abrasive tip and the insert body containing mating geometric features (i.e. tip 3 is attached to recess 2 of the insert body) ('362, figures 5 & 6). The tip and insert are assembled together by soldering/placing in an oven of high temperature (600-800 degree Celsius) which of course irreversibly deforms the mating surfaces (this is equivalent to what is claimed in claim 1, i.e. mechanical forces derived from deformation of the mating geometrical features on the abrasive tip and / or the insert body) ('362, abstract, Col. 4, lines 30+ and Col. 5, lines 8-11).

3. Claims 1, 3, 9-16, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami (USP 5,846,032).

Murakami teaches a tool insert (2) having a body (4) with plurality of elastic deformation sections (8) and an abrasive tip (5), wherein the abrasive tip and the insert body containing mating geometric features ('032, figure 1). The elastic deformation sections (8) allow the geometric features to be interlockable. Regarding claims 12 and 15, pressing the tip into section (8) secures the tip (i.e by press fitting/interference fit).

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Regarding claims 9, 10, 22 and 23, Murakami teaches the insert having a wedge portion ('032, figure 4).

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 8, 21 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroyama et al. (USP 5,183,362) in view of Kanada et al. (U.S. Pub # 2002/0190105).

Kuroyama et al. teaches a tool insert having an abrasive tip, as set forth in the above rejection.

However, Kuroyama et al. fails to teach the insert being coated.

Kanada et al. teaches an insert (1) having a coating layer formed on its surface via a physical vapor deposition method or a chemical vapor deposition method, comprising at least one element selected from the group consisting of elements belonging to groups IVa, Va, Vla in the periodic table and elements Al, Si, and B, or at least one compound selected from the group consisting of nitride, carbide, or oxide of at

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least one metal selected from this group, and their solid solutions ('105, page 4, paragraph 50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a coating to Kuroyama et al.'s insert, as taught by Kanada et al., for the purpose of improving the cutting performance of the insert ('105, page 4, right column, lines 8-10).

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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9/16/06

MONICA CARTER

SUPERVISORY PATENT EXAMINER